

**AMENDMENT UNDER 37 C.F.R. § 1.116**  
**U. S. Application No. 09/489,846**

**REMARKS**

Claims 1-5, 7, and 9-17 are pending in the application and stand rejected under 35 U.S.C. § 102(e) as being anticipated by previously-cited Rogers et al. (US 2002/0081006 A1).

In the December 8 Amendment, Applicant argued that Rogers et al. do not teach or suggest relating a result of the processed abnormal pattern to a result of the corrected abnormal pattern, for each of the plurality of items of the inputted image information, as recited in each of independent claims 1, 3, 5, and 7. The Examiner points to paragraph [0014] of the reference, in which S1 = results decided by a doctor by observing only an original image, S2 = results detected with a CAD, S3 = results of S2 corrected by a doctor, and S4 = S1 + S3. Paragraph [0014] indicates that the CAD system outputs S2 are incorporated with the radiologist's analysis to optimize the overall sensitivity of detecting true positive regions of interest. However, the recited incorporation does not correspond to relating the processed abnormal pattern result to the corrected abnormal pattern result. Rather, by incorporating the CAD system outputs with the radiologist's analysis simply means that the radiologist looks over the output S2 from the CAD system and creates a new subset of data S3 from the S2 output data. Selecting some of the data from S2 to be in a new set of data S3 is not the same as relating the data S2 to the data S3. In other words, each element in the subset S3 is not related to each element in the output S2. Rather, the plurality of data in S3 are simply selected from the plurality of data in S2. Thus, the selection of any subset of output S2 does not meet the requirements of relating a result of the processed abnormal pattern to a result of a corrected abnormal pattern, for each of the plurality of inputted information.

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In the “Response to Arguments,” the Examiner responds by asserting that the incorporation of the CAD system outputs with the radiologist’s mammographic analysis is a way of relating the CAD system data to the radiologist corrected data. The Examiner further asserts that the CAD system outputs have a “connection” with the radiologist’s analysis, and thus meet the “relating” aspect of the claims.

Applicant submits that the CAD system outputs having a “connection” with the radiologist’s analysis does not correspond to the claimed feature of relating a result of the processed abnormal pattern to a result of the corrected abnormal pattern, for each of the plurality of items of the inputted image information. The method of claim 1 requires the operation of “relating.” By contrast, even though data S2 has a connection with data S3 in Rogers et al., the reference fails to disclose an operation of connecting or relating S2 with S3. Rather, since S3 is simply a subset of S2, there is no operation of relating of S2 to S3.

Moreover, Applicant respectfully submits that the Examiner has misinterpreted the reference on this issue. Paragraph [0014] of Rogers et al. states the following:

*The radiologist then creates a fourth set of suspicious detections, S4, that is the union of sets S1 and S2, for subsequent diagnostic workups. CAD system outputs are thereby incorporated with the radiologist's mammographic analysis in a way that optimizes the overall sensitivity of detecting true positive regions of interest.*

In other words, it is the fourth set of suspicious detections S4, in which the CAD system output S2 is incorporated with the radiologist’s mammographic analysis of the first set of suspicious detections S1, i.e.,  $S4 = S1 + S2$ . Thus, the CAD system output S2 is not incorporated with the radiologist’s third set of suspicious detections S3.

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Therefore, since the Examiner has interpreted the third set of suspicious detections S3 to correspond to the result of correcting the CAD system output S2, Rogers et al. fails to disclose relating a result of the processed abnormal pattern to a result of the corrected abnormal pattern, for each of the plurality of items of the inputted image information. Instead, the reference discloses incorporating a (radiologist's) first set of suspicious regions S1 with a (CAD system's) second set of suspicious regions S2 by making a union of the sets S1 and S2. Hence, claim 1 and its dependent claims 2 and 9-14 are not anticipated by Rogers et al.

Independent claims 3, 5, and 7 are not anticipated by Rogers et al. for analogous reasons to those presented above for claim 1.

With further regard to claim 3, Applicant respectfully submits that the Examiner has misstated the teachings of the reference. Specifically, the Examiner stated the following on page 5 of the Office Action:

*The reference describes a set S4 is determined which is the union of S1+S3. Therefore, since S3 is formed on the basis of S1 and S2, and S4 is determined by relating S1 and S3, S4 is a relationship between a result of the detected abnormal pattern processing and a result of the pattern reading assessment to a result of the pathological assessment.*

However, a review of paragraph [0014] clearly shows that S4 is the union of sets S1 and S2, not S1 and S3. Also, S3 is formed from S2 alone, i.e., is a subset of S2. Thus, S3 is not formed on the basis of S1 and S2. Furthermore, S4 is not determined by relating S1 and S3, since S4 is the union of S1 and S2. Therefore, S4 does not correspond to that which is asserted by the Examiner.

Additionally, claims 1, 3, 5, and 7 are amended herein. For example, claim 1 is amended to recite that relating a result of the processed abnormal pattern to a result of the corrected

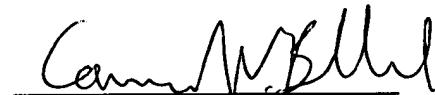
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abnormal pattern, for each of the plurality of items of the inputted image information, is performed for each patient, and storing the plurality of processed abnormal pattern results and the plurality of corrected abnormal pattern results is performed for each patient. Claims 3, 5, and 7 are amended in a corresponding manner. Applicant submits that Rogers fails to teach or suggest this feature of the claims. Therefore, claims 1-5, 7, and 9-17 are allowable for this additional reason.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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